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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/780,123	02/08/2001	Ruth Lecheler-Moore	AMDCP038	8195

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EXAMINER	
DANG, THANH HA T	
ART UNIT	**PAPER NUMBER**
2163	

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/780,123	LECHELER-MOORE ET AL.	
	Examiner	Art Unit	
	Thanh-Ha Dang	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) *3 and 11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2, 4-10, and12-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 February 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Current and Amended Claims 1-2, 4-10, and New Claims 12-21 are rejected in this Office Action.
2. Applicant cancelled Claims 3 and 11.
3. This Action is made Final.

Response to Amendment

4. Receipt of Applicant's Amendment, filed September 14, 2005 is acknowledged.
5. Applicant's amendments, submitted 14 September 2005, do not overcome the rejection in connection with the 35 U.S.C. 101 concerning Claim 7.

Specification

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the amended Claim 7 recites the limitation "a computer-readable medium" yet a computer readable medium is not disclosed in the specification.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 7, 9, 12, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,385,604 issued to Bakalash et al. ("Bakalash"), and further in view of Pub. No. US2002/0016771 issued to Carothers et al. ("Carothers").

As to **Claim 1**, Bakalash teaches "a method used in a computer system for creating from operational data an historical data warehouse containing subject-oriented data, comprising:

a) obtaining operational data from a source system" (Figure 2, wherein block10 and block20 illustrate obtaining operational data from a source system);

b) Bakalash teaches "pre-processing said obtained operational data by a stepwise operation, wherein only the last operated upon data is recorded such that data recording is avoided during data addition for efficiency purposes" (Figure 6A wherein block22 includes a MDD Aggregation Module which is equivalent to a preprocessing module, column 10, lines 62-63 wherein stored aggregated data corresponds to only the last operated upon data which is last recorded);

c) Bakalash does not explicitly teach "transforming said pre-processed data into subject-oriented data by utilizing reusable

primary keys and Relational Database Management System dates in an operating system of the source system to link related pre-processed data". However,

Carothers teaches "transforming said pre-processed data into subject-oriented data by utilizing reusable primary keys and Relational Database Management System dates in an operating system of the source system to link related pre-processed data" (Figures 5 and 7 illustrate utilizing reusable primary keys on the source system and relational database management system dates, column 5 [0058] wherein the unique integer key is equivalent to a primary key); and

d) Bakalash teaches "storing said subject-oriented data in the historical data warehouse; wherein said dates within said Relational Database Management System in said operating system of said source system are obtained by trigger or log-scraping of said Relational Database Management System" (column 12, lines 55-64).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teaching of Carothers and the teaching of Bakalash in order to provide a method and system wherein data warehousing provides management information and tools useful for operations support, thereby allowing business decision managers to assess service quality and performance.

As to **Claim 12**, Bakalash in combination with Carothers teaches "wherein said historical data warehouse includes a standard set of core reports, components and metadata" (Carothers, Figures 3 and 15 illustrate a standard set of core reports, components and metadata, column 4 [0051-0052], column 9 [0119]).

As to **Claim 17**, Bakalash in combination with Carothers teaches "wherein said stepwise operation includes performing a function on immediately previous data that is not original data" (Carothers, Figure 2, column 3 [0047] wherein step22 and step24 illustrate stepwise operation including performing a function on immediately previous data that is not original data).

As to **Claim 18**, Bakalash in combination with Carothers teaches "wherein said related pre-processed data has different descriptions recorded overtime" (Carothers, column 9 [0119] wherein different standard reports illustrate related pre-processed data having different descriptions recorded overtime).

As to **Claim 19**, Bakalash in combination with Carothers teaches "wherein said Relational Database Management System dates are utilized for placing said related preprocessed data of the subject-oriented data in a temporal order" (Carothers, Figure 4 illustrates said related preprocessed data of the subject-oriented data in a temporal order).

As to **Claim 20**, Bakalash in combination with Carothers teaches "wherein said Relational Database Management System dates are utilized for distinctly characterizing said subject-oriented data when a plurality of tables containing operational data with duplicate primary keys are combined in said historical data warehouse" (Bakalash, Figures 5A-B wherein facts table illustrates operational data with duplicate primary keys are combined in said historical data warehouse).

As to **Claim 2**, Bakalash teaches "a method used in a computer system for creating from operational data records an historical data warehouse containing related subject-oriented data records, comprising:

a) obtaining operational data records from a source system" (Figure 2, wherein block10 and block20 illustrate obtaining operational data records from a source system);

b) Bakalash teaches "pre-processing said obtained operational data records to generate pre-processed data records, wherein said pre-processing comprises operating on each operational data record in a serial manner, adding new data to an immediately prior operated-on record with an entry being recorded only for the last serially operated-on record such that data recording is avoided during data addition for efficiency purposes" (Figure 6A wherein block22 includes a MDD Aggregation Module which is equivalent to a preprocessing

module, column 10, lines 62-63 wherein stored aggregated data corresponds to only the last operated upon data which is last recorded);

c) Bakalash does not explicitly teach "transforming said pre-processed data records into related subject-oriented data records, wherein said transforming comprises linking related pre-processed data records together by means of reusable primary keys on said source system and dates within a Relational Database Management System in an operating system of said source system". However,

Carothers teaches "transforming said pre-processed data records into related subject-oriented data records, wherein said transforming comprises linking related pre-processed data records together by means of reusable primary keys on said source system and dates within a Relational Database Management System in an operating system of said source system" (Figures 5 and 7 illustrate utilizing reusable primary keys on the source system and relational database management system dates, column 5 [0058] wherein the unique integer key is equivalent to a primary key); and

d) Bakalash teaches "storing said related subject-oriented data records in the historical data warehouse; wherein said dates within said Relational Database Management System in said

operating system of said source system are obtained by trigger or log-scraping of said Relational Database Management System" (column 12, lines 55-64).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teaching of Carothers and the teaching of Bakalash in order to provide a method and system wherein data warehousing provides management information and tools useful for operations support, thereby allowing business decision managers to assess service quality and performance.

As to **Claim 7**, Bakalash teaches "a computer program embodied on a computer readable medium that generates from operational data from a source system an historical data warehouse containing subject-oriented data, comprising:

a) a preprocessing module, wherein said preprocessing module obtained said operational data by a stepwise operation, wherein only the last operated upon data is recorded such that data recording is avoided during data addition for efficiency purposes" (Figure 6A wherein block22 includes a MDD Aggregation Module which is equivalent to a preprocessing module, column 10, lines 62-63 wherein stored aggregated data corresponds to only the last operated upon data which is last recorded); and

b) Bakalash does not explicitly teach "a transforming module, wherein said transforming module transform said preprocessed data into subject-oriented data by utilizing reusable primary keys on the source system and Relational Database Management System dates in an operating system of the source system to link related preprocessed data". However,

Carothers teaches "a transforming module, wherein said transforming module transform said preprocessed data into subject-oriented data by utilizing reusable primary keys on the source system and Relational Database Management System dates in an operating system of the source system to link related preprocessed data" (Figures 5 and 7 illustrate utilizing reusable primary keys on the source system and relational database management system dates, column 5 [0058] wherein the unique integer key is equivalent to a primary key); "wherein said dates within said Relational Database Management System in said operating system of said source system are obtained by trigger or log-scraping of said Relational Database Management System" (Bakalash, column 12, lines 55-64).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teaching of Carothers and the teaching of Bakalash in order to provide a method and system wherein data warehousing provides management information and tools useful for

operations support, thereby allowing business decision managers to assess service quality and performance.

As to **Claim 9**, Bakalash teaches "a computer system used to create from operational data records an historical data warehouse containing related subject-oriented data records, comprising:

a) means for obtaining operational data records from a source computer system" (Figure 1, wherein block10 and block20 illustrate means for obtaining operational data from a source computer system);

b) Bakalash teaches "pre-processing means for pre-processing said obtained operational data records to generate pre-processed data records, wherein said pre-processing means operates on each operational data record in a serial manner, adding new data to an immediately prior operated-on record with an entry being recorded only for the last serially operated-on record such that data recording is avoided during data addition for efficiency purposes" (Figure 6A wherein block22 includes a MDD Aggregation Module which is equivalent to a preprocessing module, column 10, lines 62-63 wherein stored aggregated data corresponds to only the last operated upon data which is last recorded);

c) Bakalash does not explicitly teach "transforming means for transforming said pre-processed data records into related subject-oriented data records, wherein said transforming means links related pre-processed data records together by means of reusable primary keys on said source computer system and dates within a Relational Database Management System in an operating system of said source computer system". However, Carothers teaches "transforming means for transforming said pre-processed data records into related subject-oriented data records, wherein said transforming means links related pre-processed data records together by means of reusable primary keys on said source computer system and dates within a Relational Database Management System in an operating system of said source computer system" (Figures 5 and 7 illustrate utilizing reusable primary keys on the source system and relational database management system dates, column 5 [0058]; wherein the unique integer key is equivalent to a primary key); and

d) Bakalash teaches "storage means for storing said related subject-oriented data records in the historical data warehouse; wherein said dates within said Relational Database Management System in said operating system of said source

system are obtained by trigger or log-scraping of said Relational Database Management System" (column 12, lines 55-64).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teaching of Carothers and the teaching of Bakalash in order to provide a method and system wherein data warehousing provides management information and tools useful for operations support, thereby allowing business decision managers to assess service quality and performance.

Claims 4, 8, 10 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,385,604 issued to Bakalash et al. ("Bakalash"), and further in view of Pub. No. US2002/0016771 issued to Carothers et al. ("Carothers") as applied to Claims 1, 7, and 9 above respectively, and further in view of U.S. Patent No. 6,587,857 issued to Carothers et al ("Carothers.857").

As to **Claims 4** and **10**:

Bakalash and Carothers teach the elements of Claims 1 and 9 as stated above respectively.

Bakalash and Carothers do not explicitly teach "further comprising the step of accessing the historical data warehouse by standard viewing means".

Carothers.857 teaches "further comprising the step of accessing the historical data warehouse by standard viewing means" (column 11,

lines 32-34, wherein a web browser is an example of a standard viewing means).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teaching of Carothers.857 with the teachings of Bakalash and Carothers in order to provide a method and system which include a web browser, thereby allowing users to access and view information from a historical data warehouse.

As to **Claim 8**:

Bakalash and Carothers teach the elements of Claim 7 as stated above.

Bakalash and Carothers do not explicitly teach "further comprising a storage module for storing said subject-oriented data in an easily accessible format".

Carothers.857 teaches "further comprising a storage module for storing said subject-oriented data in an easily accessible format" (column 7, lines 16-23, wherein the CATmsg++.out stores subject-oriented data in an easily accessible format).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teaching of Carothers.857 with the teachings of Bakalash and Carothers in order to provide a method and system which include subject-oriented data in an easily accessible format,

thereby providing users the flexibility to access and view information from a historical data warehouse.

As to **Claim 21**:

Bakalash and Carothers teach the elements of Claim 1 as stated above.

Bakalash and Carothers do not explicitly teach "wherein said subject-oriented data is stored in said historical data warehouse with an associated creation date and deletion date derived from said Relational Database Management System dates". However,

Carothers.857 teaches "wherein said subject-oriented data is stored in said historical data warehouse with an associated creation date and deletion date derived from said Relational Database Management System dates" (column 8, lines 29-33 wherein creation date is equivalent to beginning date and deletion date is equivalent to ending date).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teaching of Carothers.857 with the teachings of Bakalash and Carothers in order to provide a method and system which provide transaction date, thereby providing users the flexibility to access information in chronological order.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,385,604 issued to Bakalash et al. ("Bakalash") as applied to Claim 5 above, and further in view of U.S. Patent No. 6,587,857 issued to Carothers et al ("Carothers.857").

As to **Claim 6**:

Bakalash teaches the elements of Claim 5 as stated above.

Bakalash does not explicitly teach "further comprising the step of accessing the historical data warehouse by standard viewing means".

Carothers.857 teaches "further comprising the step of accessing the historical data warehouse by standard viewing means" (column 11, lines 32-34, wherein a web browser is an example of a standard viewing means).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teaching of Carothers.857 with the teaching of Bakalash in order to provide a method and system which include a web browser, thereby allowing users to access and view information from a historical data warehouse.

Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,385,604 issued to Bakalash et al. ("Bakalash"), and further in view of Pub. No. US2002/0016771 issued to Carothers et al. ("Carothers") as applied to Claim 1 above, and further in view of U.S. Patent No. 6,714,945 issued to Foote et al. ("Foote").

As to **Claim 13**:

Bakalash and Carothers teach the elements of Claim 1 as stated above.

Bakalash and Carothers do not explicitly teach "wherein said pre-processing includes at least one of an ignore function, an insert function, an update function, and a replicate function".

Foote teaches "wherein said pre-processing includes at least one of an ignore function, an insert function, an update function, and a replicate function" (column 9, lines 39-41).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teaching of Foote with the teachings of Bakalash and Carothers in order to provide a method and system which include operational functions, thereby expanding the processing and operational capabilities of the historical data warehouse.

As to **Claim 14**:

Bakalash, Carothers, and Foote teach the elements of Claim 13 as stated above.

Bakalash, Carothers in combination with Foote teaches "wherein said replicate function includes a delete function" (Bakalash, Figure 2 wherein block22 support mechanism method includes a delete function).

As to **Claim 15**:

Bakalash, Carothers, and Foote teach the elements of Claim 13 as stated above.

Bakalash, Carothers in combination with Foote teaches "wherein said pre-processing associated with said update function returns an error when associated subject-oriented data does not exist in said historical data warehouse" (Foote, column 9, lines 64-67 and column 10, lines 1-2).

As to **Claim 16**:

Bakalash, Carothers, and Foote teach the elements of Claim 13 as stated above.

Bakalash, Carothers in combination with Foote teaches "wherein said pre-processing associated with said insert function returns a warning when associated subject-oriented data already exists in said historical data warehouse" (Foote, column 9, lines 45-47 wherein a return code is equivalent to a return warning).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 5 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,385,604 issued to Bakalash et al ("Bakalash").

As to **Claim 5**, Bakalash teaches "a method used in a computer system for creating from operational data records an historical data warehouse containing related subject-oriented data records, comprising:

a) obtaining operational data records from a legacy source system" (Figure 2, wherein block10 and block20 illustrate obtaining operational data records from a legacy source system);

b) Bakalash teaches "pre-processing said obtained operational data records to generate pre-processed data records, wherein said pre-processing comprises operating on each operational data record in a stepwise manner, adding new data to an immediately prior operated-on record with an entry being recorded only for the record having the last stepwise operation" (Figure 6A wherein block22 includes a MDD Aggregation Module which is equivalent to a preprocessing module, column 10, lines 62-63 wherein stored aggregated data corresponds to only the last operated upon data which is last recorded);

c) Bakalash teaches "transforming said pre-processed data records into related subject-oriented data records, wherein said transforming comprises linking related pre-processed data records together by means of reusable primary keys on said source system and dates obtained by trigger or log-scraping an Relational Database Management System in an operating system of said legacy source system" (column 12, lines 55-64); and

d) Bakalash teaches "storing said related subject-oriented data records in the historical data warehouse" (Figure 2, block22 illustrates storing said related subject-oritented data records in the historical data warehouse).

Citation of Pertinent Prior Art

9. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure:

- Pub. No. US2003/0225736 A1 by Bakalash et al., "Enterprise-Wide Resource Planning (ERP) System with Integrated Data Aggregation Engine".
- U.S. Patent No. 6,138,121 issued to Costa et al., "Network Management Event Storage and Manipulation Using Relational Database Technology in a Data Warehouse".

- U.S. Patent No. 6,892,210 issued to Erickson et al., "Database Management and Synchronization Across a Peer-to-Peer Network".

Conclusion

10. Applicant's arguments with respect to claims 1-2, 4-10, and 12-21 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh-Ha Dang whose telephone number is 571-272-4033. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thanh-Ha Dang
Examiner
Art Unit 2163

SAFET METJAHIC
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